

In the Specification

Please add the following new paragraph after the paragraph beginning on page 80, line 10:

Thus, as shown in Fig. 8, encrypting of the video programming data transmitted from the head end to the set top multimedia terminals is performed as follows:

- (1) At the set top multimedia terminal, generate a seed random number N to be used for the random number generator (step 802);
- (2) Retrieve the public key P from the head end (step 804) and encrypt the seed random number N as $E(N,P)$ at the set top multimedia terminal using a public key algorithm such as RSA which is known to be difficult to break (step 806);
- (3) Send the encrypted seed N ($E(N,P)$) to the head end (step 808) where ($E(N,P)$) is received (step 810) and decrypted to yield N using the head end's private key Q (step 812);
- (4) The head end and set top multimedia terminals then initialize their respective pseudo-random number generators with N as a seed (step 714);
- (5) Begin the encryption at the head end (step 816) by having the encryptor generate the first number in the sequence K_i and logically exclusive-ORing it with the first data word in the stream P_i , thereby forming C_i (i.e., $C_i = \text{EOR}(K_i, P_i)$);
- (6) Send the result C_i from the encryptor at the head end to the set top multimedia terminal (step 818), where it is received by the set top multimedia terminal (step 820); and
- (7) Form K_i at the synchronized random number generator of the set top multimedia terminal, which has also been initialized with N , by decrypting the received C_i to yield P_i . This is done by exclusive-ORing K_i with C_i to yield P_i (i.e., $P_i = \text{EOR}(K_i, C_i)$) (step 822), generating the next pseudo-random K_i in the sequence at the set top multimedia terminal and the head end (step 824), determining whether all words i in the sequence have been decrypted (step 826), and repeating steps 816-826 until all words in the digital video stream have been decrypted. Normal processing of the digital video stream continues from that point (step 828).